



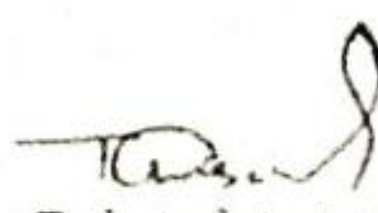




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|--|---|---|--|---|--|--------------------------------------|--------------------------|----------|
|  CC - 2147 |  | ELECTRO METER CORPORATION P- 5, C.I.T ROAD, KOLKATA - 700014 | Form No. FM/22 CALIBRATION CERTIFICATE OF: AUTO PIPETTE | | | | | |
| CALIBRATION CERTIFICATE NO | | EMC2022-KOL-00011115 | ULR NO | CC21472200007051F | Page 1/1 | | | |
| 1.0 | ISSUED TO | | CPL DIAGNOSTICS PVT. LTD CZ-8, METROPOLITAN CHS LTD, CANAL SOUTH ROAD, KOLKATA-700105 | | | | | |
| 1.1 | Service Request / Order No. | | 532-E04-02-22 | | | | | |
| 1.2 | Description identification of item to be calibrated. | | | | | | | |
| | i | Name | AUTO PIPETTE | ii | Code No. | CPLDPL/MP-01 | | |
| | iii | SI No | QE591670 | iv | Make | Erbamannheim | | |
| | v | Model / Type No | -- | vi | Range | 100µl to 1000µl | | |
| | vii | Sensor | -- | viii | Resolution | 5µl | | |
| | ix | Location | -- | | | | | |
| 1.3 | Applicable specification of item to be calibrated: Accuracy / permissible limit | | | | Not Specified | | | |
| 1.4 | Date of receipt of item | | 11-Feb-2022 | 1.5 | Date of calibration | | 16-Feb-2022 | |
| 1.6 | Recommended date for next calibration | | 16-Feb-2023 | 1.7 | Frequency of calibration | | 12 months | |
| 1.8a | Environmental condition during calibration | | Temperature | 21.0 °C | | | | |
| | | | Humidity | 56.0 % RH | | | | |
| | | | Atmospheric pressure | 1005.6 mbar | | | | |
| | | | Water Temperature | 20.6 °C | | | | |
| 1.8b | Recommended Environmental Condition | | Temperature | 20°C ± 2°C | | | | |
| | | | Humidity | 50% RH ± 10% RH | | | | |
| 1.9 | Basis of calibration: | | S O P Number | S O P/Mass/08 | | | | |
| | | | Standard Followed | ISO 8655:2002, ISO/TR 20461 | | | | |
| | | | Description of Method | Calibration of Micropipette using Digital Precision Balance upto 6g/220g, readability 0.001mg/0.01mg and distilled water of known density by Gravimetric method as per ISO 8655:2002 & ISO/TR 20461 | | | | |
| 2.0 | Traceability : Standards Used for Calibration are Traceable to National/International Standards through ISO/IEC: 17025 Accredited Laboratory. | | | | | | | |
| Sl. No. | Name of the standard instrument used (Sl. No./Code Nos.) | | Range | Resolution | Recommended date for next calibration | Traceable to / Certificate Nos. | | |
| 1 | Weight Box, Make: Mettler Toledo, Grade E1, Sl. No: B309075500, Code No: EMC/WB-E1/629 | | 1 mg to 200 g | - | 18-04-2022 | WMCL / WMCL/E/2019-04/2713 | | |
| 2 | Micro Balance, Make: Mettler Toledo, Model No: XP6, Sl. No: B713878915, Code No: EMC/MB/766 | | 6.1 g | 0.000001 g | 14-08-2022 | EMC (Kolkata) / EMC2021-KOL-00032770 | | |
| 3 | Digital Temperature & Humidity Meter, Make: Metravi, Model No: HT-3005, Sl. No: 141017143, Code No: EMC/DTHM/769 | | 19°C to 25°C (for Temperature) & 15% RH to 80% RH (for Humidity) | 0.1°C (for Temperature) & 0.1% RH (for Humidity) | 18-03-2022 | EMC (Kolkata) / EMC2021-KOL-00011400 | | |
| 4 | Digital Temperature Indicator, Make: Metravi, Model No: DTI-111, Sl. No: 503, Code No: EMC/DTI/267 | | (-)50°C to 199.9°C | 0.1°C | 28-10-2022 | EMC (Kolkata) / EMC2021-KOL-00049664 | | |
| 5 | Digital Pressure Gauge (Absolute Pressure) Sl. No: D12B151 Model: YDPIR0101, Code No: EMC/APG/574 | | 0 bar to 1.5 bar (Abs) | 0.0001 bar | 03-09-2023 | Wika / WCP/021-407 | | |
| CALIBRATION RESULT | | | | | | | | |
| Nominal Range | | Resolution | Nominal Value | Value determined by Electronic Balance in | Actual value determined after temp correction in | Error in | Expanded Uncertainty (±) | k factor |
| | | | (µl) | (mg) | (µl) | (µl) | (µl) | |
| 100 µl | to | 5µl | 100 | 100.0015 | 100.298 | 0.298 | 0.012 | 2.00 |
| | | | 500 | 499.9980 | 501.482 | 1.482 | 0.059 | 2.00 |
| | | | 1000 | 999.9995 | 1002.967 | 2.967 | 0.120 | 2.00 |
| Note: i) Average of 10 readings had been taken in DUC/STD ii) The calibration certificate is issued by Electro Meter Corporation. This certificate refers only for the particular item submitted to calibrate iii) The certificate if produced for any purpose commercial or otherwise, should be reproduced in full. Partial production of the certificate or an abstract thereof has to be got specifically approved from the technical and the quality manager of this lab iv) The results in the calibration certificate are valid at the time of and under the stated conditions on measurement v) "The Calibration result is only to be used for scientific and industrial purpose. This result can not be used for commercial purpose." | | | | | | | | |
| Measurement uncertainty at approx 95 % of confidence level & at a coverage factor : As Per Calibration Result | | | | | | | | |
| Remarks: Statement of conformity not mentioned. | | | | | | | | |
| DUC- Device Under Calibration | | | FS -Full Scale | | Physical status of the DUC: OK | | | |
| Calibrated by: Tarun Ghosal Date: 16-Feb-2022 Report Issue Date : 02-03-2022 | | | | Checked & Approved by: Saptarshi Das Date : 02-03-2022 | | | | |
|  Technical Assistant Electro Meter Corporation | | | |  S. Das Technical Manager Electro Meter Corporation | | | | |
| END OF CERTIFICATE | | | | | | | | |

|  CC - 2147 |  | ELECTRO METER CORPORATION P- 5, C.I.T ROAD, KOLKATA - 700014 | Form No.: FM/22 CALIBRATION CERTIFICATE OF: AUTO PIPETTE | | | | | |
|--|--|--|---|---|--|----------|--------------------------|----------|
| CALIBRATION CERTIFICATE NO.: EMC2022-KOL-00011116 | | ULR NO.: CC214722000007052F | Page: 1/1 | | | | | |
| 1.0 ISSUED TO: | | CPL DIAGNOSTICS PVT. LTD CZ-8, METROPOLITAN CHS LTD, CANAL SOUTH ROAD, KOLKATA-700105 | | | | | | |
| 1.1 Service Request / Order No.: | | 532-E04-02-22 | | | | | | |
| 1.2 Description identification of item to be calibrated: | | | | | | | | |
| i | Name: | ii | Code No.: CPLDPL/MP-02 | | | | | |
| iii | Sl. No.: | iv | Make: Erbamannheim | | | | | |
| v | Model / Type No.: | vi | Range: 10µl to 100µl | | | | | |
| vii | Sensor: | viii | Resolution: 5µl | | | | | |
| ix | Location: | | | | | | | |
| 1.3 Applicable specification of item to be calibrated: Accuracy / permissible limit: | | | Not Specified | | | | | |
| 1.4 Date of receipt of item: | | 11-Feb-2022 | 1.5 Date of calibration: 16-Feb-2022 | | | | | |
| 1.6 Recommended date for next calibration | | 16-Feb-2023 | 1.7 Frequency of calibration: 12 months | | | | | |
| 1.8a Environmental condition during calibration | | Temperature: | 21.0 °C | | | | | |
| | | Humidity: | 56.0 % RH | | | | | |
| | | Atmospheric pressure: | 1005.6 mbar | | | | | |
| | | Water Temperature: | 20.6 °C | | | | | |
| 1.8b Recommended Environmental Condition | | Temperature: | 20°C ± 2°C | | | | | |
| | | Humidity: | 50% RH ± 10% RH | | | | | |
| 1.9 Basis of calibration: | | S.O.P Number | S.O.P/Mass/08 | | | | | |
| | | Standard Followed | ISO 8655: 2002, ISO/TR 20461 | | | | | |
| | | Description of Method | Calibration of Micropipette using Digital Precision Balance upto 6g/220g, readability 0.001mg/0.01mg and distilled water of known density by Gravimetric method as per ISO 8655:2002 & ISO/TR 20461 | | | | | |
| 2.0 Traceability : Standards Used for Calibration are Traceable to National/International Standards through ISO/IEC: 17025 Accredited Laboratory. | | | | | | | | |
| Sl. No. | Name of the standard instrument used (Sl. No./Code Nos.) | Range | Resolution | Recommended date for next calibration | Traceable to / Certificate Nos. | | | |
| 1 | Weight Box, Make: Mettler Toledo, Grade: E1, Sl. No: B309075500, Code No. EMC/WB-E1/629 | 1 mg to 200 g | | 18-04-2022 | WMCL / WMCL/E/2019-04/2713 | | | |
| 2 | Micro Balance, Make: Mettler Toledo, Model No: XP6, Sl. No. B713878915, Code No. EMC/MB/766 | 6.1 g | 0.000001 g | 14-08-2022 | EMC (Kolkata) / EMC2021-KOL-00032770 | | | |
| 3 | Digital Temperature & Humidity Meter, Make: Metravi, Model No. HT-3005, Sl. No. 141017143, Code No. EMC/DTHM/769 | 19°C to 25°C (for Temperature) & 15% RH to 80% RH (for Humidity) | 0.1°C (for Temperature) & 0.1% RH (for Humidity) | 18-03-2022 | EMC (Kolkata) / EMC2021-KOL-00011400 | | | |
| 4 | Digital Temperature Indicator, Make: Metravi, Model No. DTI-111, Sl. No. 503, Code No. EMC/DTI/267 | (-)50°C to 199.9°C | 0.1°C | 28-10-2022 | EMC (Kolkata) / EMC2021-KOL-00049664 | | | |
| 5 | Digital Pressure Gauge (Absolute Pressure) Sl. No. D12B151 Model. YDPIR0101, Code No: EMC/APG/574 | 0 bar to 1.5 bar (Abs) | 0.0001 bar | 03-09-2023 | Wika / WCP/021-407 | | | |
| CALIBRATION RESULT | | | | | | | | |
| Nominal Range | | Resolution | Nominal Value | Value determined by Electronic Balance in | Actual value determined after temp correction in | Error in | Expanded Uncertainty (±) | k factor |
| | | | (µl) | (mg) | (µl) | (µl) | (µl) | |
| 10 µl to 100 µl | | 5µl | 10 | 10.0015 | 10.031 | 0.031 | 0.004 | 2.00 |
| | | | 50 | 49.9974 | 50.146 | 0.146 | 0.007 | 2.00 |
| | | | 100 | 99.9995 | 100.296 | 0.296 | 0.012 | 2.00 |
| Note: i) Average of 10 readings had been taken in DUC/STD. | | | | | | | | |
| ii) The calibration certificate is issued by Electro Meter Corporation. This certificate refers only for the particular item submitted to calibrate. | | | | | | | | |
| iii) The certificate if produced for any purpose commercial or otherwise, should be reproduced in full. Partial production of the certificate or an abstract thereof has to be got specifically approved from the technical and the quality manager of this lab. | | | | | | | | |
| iv) The results in the calibration certificate are valid at the time of and under the stated conditions on measurement. | | | | | | | | |
| v) "The Calibration result is only to be used for scientific and industrial purpose. This result can not be used for commercial purpose." | | | | | | | | |
| Measurement uncertainty at approx 95 % of confidence level & at a coverage factor : As Per Calibration Result | | | | | | | | |
| Remarks: Statement of conformity not mentioned. | | | | | | | | |
| DUC- Device Under Calibration | | | F.S.-Full Scale | | Physical status of the DUC: OK | | | |
| Calibrated by: Tarun Ghosal Date: 16-Feb-2022 Report Issue Date : 02-03-2022 | | | | Checked & Approved by: Saptarshi Das Date : 02-03-2022 | | | | |
|  Technical Assistant Electro Meter Corporation | | | |  S. Das Technical Manager Electro Meter Corporation | | | | |
| END OF CERTIFICATE | | | | | | | | |

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|--|---|---|--|
|  CC - 2147 |  | ELECTRO METER CORPORATION P- 5, C.I.T ROAD, KOLKATA - 700014 | Form No.: FM/22 CALIBRATION CERTIFICATE OF: AUTO PIPETTE |
|--|---|---|--|

CALIBRATION CERTIFICATE NO.: EMC2022-KOL-00011117 ULR NO.: CC214722000007053F Page: 1/1

| | | | | | |
|---|--|---|--------------|--|--|
| 1.0 ISSUED TO: | CPL DIAGNOSTICS PVT. LTD CZ-8, METROPOLITAN CHS LTD, CANAL SOUTH ROAD, KOLKATA-700105 | | | | |
| 1.1 Service Request / Order No.: | 532-E04-02-22 | | | | |
| 1.2 Description identification of item to be calibrated: | | | | | |
| i Name: | AUTO PIPETTE | ii Code No.: | CPLDPL/MP-03 | | |
| iii SI. No.: | YE202AM0108072 | iv Make: | Dragon Lab | | |
| v Model / Type No.: | -- | vi Range: | 20 µl | | |
| vii Sensor: | - | viii Resolution: | -- | | |
| ix Location: | -- | | | | |
| 1.3 Applicable specification of item to be calibrated: Accuracy / permissible limit: | Not Specified | | | | |
| 1.4 Date of receipt of item: | 11-Feb-2022 | 1.5 Date of calibration: | 16-Feb-2022 | | |
| 1.6 Recommended date for next calibration | 16-Feb-2023 | 1.7 Frequency of calibration: | 12 months | | |
| 1.8a Environmental condition during calibration | Temperature: | 20.7 °C | | | |
| | Humidity: | 56.4 % RH | | | |
| | Atmospheric pressure: | 1006.0 mbar | | | |
| | Water Temperature: | 20.4 °C | | | |
| 1.8b Recommended Environmental Condition | Temperature: | 20°C ± 2°C | | | |
| | Humidity: | 50% RH ± 10% RH | | | |
| 1.9 Basis of calibration: | S.O.P Number | S.O.P/Mass/08 | | | |
| | Standard Followed | ISO 8655: 2002 , ISO/TR 20461 | | | |
| | Description of Method | Calibration of Micropipette using Digital Precision Balance upto 6g/220g, readability 0.001mg/0.01mg and distilled water of known density by Gravimetric method as per ISO 8655:2002 & ISO/TR 20461 | | | |
| 2.0 Traceability : Standards Used for Calibration are Traceable to National/International Standards through ISO/IEC: 17025 Accredited Laboratory. | | | | | |

| Sl. No. | Name of the standard instrument used (Sl. No./Code Nos.) | Range | Resolution | Recommended date for next calibration | Traceable to / Certificate Nos. |
|---------|--|--|--|---------------------------------------|--------------------------------------|
| 1 | Weight Box, Make: Mettler Toledo, Grade: E1, Sl. No: B309075500, Code No. EMC/WB-E1/629 | 1 mg to 200 g | - | 18-04-2022 | WMCL / WMCL/E/2019-04/2713 |
| 2 | Micro Balance, Make: Mettler Toledo, Model No: XP6, Sl. No. B713878915, Code No. EMC/MB/766 | 6.1 g | 0.000001 g | 14-08-2022 | EMC (Kolkata) / EMC2021-KOL-00032770 |
| 3 | Digital Temperature & Humidity Meter, Make: Metravi, Model No. HT-3005, Sl. No. 141017143, Code No. EMC/DTHM/769 | 19°C to 25°C (for Temperature) & 15% RH to 80% RH (for Humidity) | 0.1°C (for Temperature) & 0.1% RH (for Humidity) | 18-03-2022 | EMC (Kolkata) / EMC2021-KOL-00011400 |
| 4 | Digital Temperature Indicator, Make: Metravi, Model No. DTI-111, Sl. No. 503, Code No. EMC/DTI/267 | (-)50°C to 199.9°C | 0.1°C | 28-10-2022 | EMC (Kolkata) / EMC2021-KOL-00049664 |
| 5 | Digital Pressure Gauge (Absolute Pressure) Sl. No. D12B151 Model. YDPIR0101, Code No: EMC/APG/574 | 0 bar to 1.5 bar (Abs) | 0.0001 bar | 03-09-2023 | Wika / WCP/021-407 |

CALIBRATION RESULT

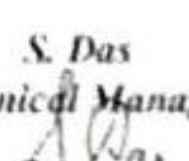

| Nominal Range | Resolution | Nominal Value | Value Determined by Electronic Balance in | Actual value Determined After Temp. Correction in | Error in | Expanded Uncertainty (±) | k factor |
|---------------|------------|---------------|---|---|----------|--------------------------|----------|
| (µl) | | (µl) | (mg) | (µl) | (µl) | (µl) | |
| 20 | -- | 20 | 19.951 | 20.009 | 0.009 | 0.004 | 2.00 |

Note: i) Average of 10 readings had been taken in DUC/STD.
 ii) The calibration certificate is issued by Electro Meter Corporation. This certificate refers only for the particular item submitted to calibrate.
 iii) The certificate if produced for any purpose commercial or otherwise, should be reproduced in full. Partial production of the certificate or an abstract thereof has to be got specifically approved from the technical and the quality manager of this lab.
 iv) The results in the calibration certificate are valid at the time of and under the stated conditions on measurement.
 v) "The Calibration result is only to be used for scientific and industrial purpose. This result can not be used for commercial purpose."





Measurement uncertainty at approx 95 % of confidence level & at a coverage factor : As Per Calibration Result

Remarks: Statement of conformity not mentioned.





DUC- Device Under Calibration F.S.-Full Scale Physical status of the DUC: OK

| | |
|---|--|
| Calibrated by: Tarun ghosal Date: 16-02-2022 Report Issue Date: 02-03-2022 | Checked & Approved by: Saptarshi Das Date: 02-03-2022 <div style="text-align: center;">  S. Das Technical Manager Electro Meter Corporation </div> |
|  Technical Assistant Electro Meter Corporation | |

END OF CERTIFICATE

| | | | | | | | | |
|--|--|--|--|---|--|---|--------------------------|----------|
|  CC - 2147 |  | ELECTRO METER CORPORATION P- 5, C.I.T ROAD, KOLKATA - 700014 | Form No.: FM/22 CALIBRATION CERTIFICATE OF: AUTO PIPETTE | | | | | |
| CALIBRATION CERTIFICATE NO: EMC2022-KOL-00010927 | | ULR NO: CC214722000007045F | Page: 1/1 | | | | | |
| 1.0 ISSUED TO: | | CPL DIAGNOSTICS PVT. LTD CZ-8, METROPOLITAN CHS LTD, CANAL SOUTH ROAD, KOLKATA-700105 | | | | | | |
| 1.1 Service Request / Order No: | | CPL-56-02-22 | | | | | | |
| 1.2 Description identification of item to be calibrated | | | | | | | | |
| i | Name | ii | Code No | | | | | |
| | AUTO PIPETTE | | CPLDPL/MP/02 | | | | | |
| iii | SI No | iv | Make | | | | | |
| | YE5K647035 | | Dragon Lab | | | | | |
| v | Model / Type No | vi | Range | | | | | |
| | -- | | 5µl to 50µl | | | | | |
| vii | Sensor | viii | Resolution | | | | | |
| | -- | | 0.5µl | | | | | |
| ix | Location | | | | | | | |
| | -- | | | | | | | |
| 1.3 Applicable specification of item to be calibrated: Accuracy / permissible limit | | Not Specified | | | | | | |
| 1.4 Date of receipt of item: 23-Feb-2022 | | 1.5 Date of calibration: 1-Mar-2022 | | | | | | |
| 1.6 Recommended date for next calibration: 1-Mar-2023 | | 1.7 Frequency of calibration: 12 months | | | | | | |
| 1.8a Environmental condition during calibration | | Temperature: 21.0 °C Humidity: 56.0 % RH Atmospheric pressure: 1005.6 mbar Water Temperature: 20.6 °C | | | | | | |
| 1.8b Recommended Environmental Condition | | Temperature: 20°C ± 2°C Humidity: 50% RH ± 10% RH | | | | | | |
| 1.9 Basis of calibration: | | | | | | | | |
| S O P Number: S O P/Mass/08 | | Standard Followed: ISO 8655: 2002, ISO/TR 20461 | | | | | | |
| Description of Method: Calibration of Micropipette using Digital Precision Balance upto 6g/220g, readability 0.001mg/0.01mg and distilled water of known density by Gravimetric method as per ISO 8655 2002 & ISO/TR 20461 | | | | | | | | |
| 2.0 Traceability : Standards Used for Calibration are Traceable to National/International Standards through ISO/IEC: 17025 Accredited Laboratory. | | | | | | | | |
| Sl. No. | Name of the standard instrument used (Sl. No./Code Nos.) | Range | Resolution | Recommended date for next calibration | Traceable to / Certificate Nos. | | | |
| 1 | Weight Box, Make: Mettler Toledo, Grade: E1, SI No: B309075500, Code No: EMC/WB-E1/629 | 1 mg to 200 g | - | 18-04-2022 | WMCL / WMCL/E/2019-04/2713 | | | |
| 2 | Micro Balance, Make: Mettler Toledo, Model No. XP6, SI. No. B713878915, Code No: EMC/MB/766 | 6.1 g | 0.000001 g | 14-08-2022 | EMC (Kolkata) / EMC2021-KOL-00032770 | | | |
| 3 | Digital Temperature & Humidity Meter, Make: Metravi, Model No: HT-3005, SI. No: 141017143, Code No: EMC/DTHM/769 | 19°C to 25°C (for Temperature) & 15% RH to 80% RH (for Humidity) | 0.1°C (for Temperature) & 0.1% RH (for Humidity) | 18-03-2022 | EMC (Kolkata) / EMC2021-KOL-00011400 | | | |
| 4 | Digital Temperature Indicator, Make: Metravi, Model No: DTI-111, SI. No: 503, Code No: EMC/DTI/267 | (-)50°C to 199.9°C | 0.1°C | 28-10-2022 | EMC (Kolkata) / EMC2021-KOL-00049664 | | | |
| 5 | Digital Pressure Gauge (Absolute Pressure) SI. No: D12B151 Model: YDPIR0101, Code No: EMC/APG/574 | 0 bar to 1.5 bar (Abs) | 0.0001 bar | 03-09-2023 | Wika / WCP/021-407 | | | |
| CALIBRATION RESULT | | | | | | | | |
| Nominal Range | | Resolution | Nominal Value | Value determined by Electronic Balance in | Actual value determined after temp correction in | Error in | Expanded Uncertainty (±) | k factor |
| | | | (µl) | (mg) | (µl) | (µl) | (µl) | |
| 5 µl to 50 µl | | 0.5µl | 5 | 5.0025 | 5.017 | 0.017 | 0.003 | 2.17 |
| | | | 25 | 25.0040 | 25.078 | 0.078 | 0.006 | 2.00 |
| | | | 50 | 49.9945 | 50.143 | 0.143 | 0.007 | 2.00 |
| Note: i) Average of 10 readings had been taken in DUC/STD. ii) The calibration certificate is issued by Electro Meter Corporation. This certificate refers only for the particular item submitted to calibrate. iii) The certificate if produced for any purpose commercial or otherwise, should be reproduced in full. Partial production of the certificate or an abstract thereof has to be got specifically approved from the technical and the quality manager of this lab. iv) The results in the calibration certificate are valid at the time of and under the stated conditions on measurement. v) "The Calibration result is only to be used for scientific and industrial purpose. This result can not be used for commercial purpose." | | | | | | Measurement uncertainty at approx 95 % of confidence level & at a coverage factor : As Per Calibration Result | | |
| Remarks: Statement of conformity not mentioned | | | | | | DUC- Device Under Calibration: FS -Full Scale Physical status of the DUC: OK | | |
| Calibrated by: Pallab Sen Date: 1-Mar-2022 Report Issue Date: 02-03-2022 | | | | Checked & Approved by: Saptarshi Das Date: 02-03-2022 | | | | |
|  Lab in charge Electro Meter Corporation | | | |  S. Das Technical Manager Electro Meter Corporation | | | | |
| END OF CERTIFICATE | | | | | | | | |

ISSUED BY ELECTRO METER CORPORATION

| | | | | | | | |
|---|--|---|--|---|--------------------------------------|--------------------------|----------|
|  CC - 2147 |  | ELECTRO METER CORPORATION P- 5, C.I.T ROAD, KOLKATA - 700014 | Form No: FM/22 CALIBRATION CERTIFICATE OF: AUTO PIPETTE | | | | |
| CALIBRATION CERTIFICATE NO: EMC2022-KOL-00010928 | | ULR NO: CC214722000007046F | Page: 1/1 | | | | |
| 1.0 ISSUED TO: | | CPL DIAGNOSTICS PVT. LTD CZ-8, METROPOLITAN CHS LTD, CANAL SOUTH ROAD, KOLKATA-700105 | | | | | |
| 1.1 Service Request / Order No: | | CPL-56-02-22 | | | | | |
| 1.2 Description identification of item to be calibrated | | | | | | | |
| i Name: AUTO PIPETTE | | ii Code No: CPLDPL/MP/05 | | | | | |
| iii SI No: -- | | iv Make: -- | | | | | |
| v Model / Type No: -- | | vi Range: 1µl to 10µl | | | | | |
| vii Sensor: -- | | viii Resolution: 0.1µl | | | | | |
| ix Location: -- | | Not Specified | | | | | |
| 1.3 Applicable specification of item to be calibrated: Accuracy / permissible limit | | | | | | | |
| 1.4 Date of receipt of item: 23-Feb-2022 | | 1.5 Date of calibration: 1-Mar-2022 | | | | | |
| 1.6 Recommended date for next calibration: 1-Mar-2023 | | 1.7 Frequency of calibration: 12 months | | | | | |
| 1.8a Environmental condition during calibration | | Temperature: 21.0 °C Humidity: 56.0 % RH Atmospheric pressure: 1005.6 mbar Water Temperature: 20.6 °C | | | | | |
| 1.8b Recommended Environmental Condition | | Temperature: 20°C ± 2°C Humidity: 50% RH ± 10% RH | | | | | |
| 1.9 Basis of calibration: | | | | | | | |
| S O P Number: | | S O P/Mass/08 | | | | | |
| Standard Followed: | | ISO 8655:2002, ISO/TR 20461 | | | | | |
| Description of Method: | | Calibration of Micropipette using Digital Precision Balance upto 6g/220g, readability 0.001mg/0.01mg and distilled water of known density by Gravimetric method as per ISO 8655:2002 & ISO/TR 20461 | | | | | |
| 2.0 Traceability : Standards Used for Calibration are Traceable to National/International Standards through ISO/IEC: 17025 Accredited Laboratory. | | | | | | | |
| Sl. No. | Name of the standard instrument used (Sl. No./Code Nos.) | Range | Resolution | Recommended date for next calibration | Traceable to / Certificate Nos. | | |
| 1 | Weight Box, Make: Mettler Toledo, Grade: E1, Sl. No. B309075500, Code No. EMC/WB-E1/629 | 1 mg to 200 g | - | 18-04-2022 | WMCL / WMCL/E/2019-04/2713 | | |
| 2 | Micro Balance, Make: Mettler Toledo, Model No. XP6, Sl. No. B713878915, Code No. EMC/MB/766 | 6.1 g | 0.000001 g | 14-08-2022 | EMC (Kolkata) / EMC2021-KOL-00032770 | | |
| 3 | Digital Temperature & Humidity Meter, Make: Metravi, Model No. HT-3005, Sl. No. 141017143, Code No. EMC/DTHM/769 | 19°C to 25°C (for Temperature) & 15% RH to 80% RH (for Humidity) | 0.1°C (for Temperature) & 0.1% RH (for Humidity) | 18-03-2022 | EMC (Kolkata) / EMC2021-KOL-00011400 | | |
| 4 | Digital Temperature Indicator, Make: Metravi, Model No. DTI-111, Sl. No. 503, Code No. EMC/DTI/267 | (-)50°C to 199.9°C | 0.1°C | 28-10-2022 | EMC (Kolkata) / EMC2021-KOL-00049664 | | |
| 5 | Digital Pressure Gauge (Absolute Pressure) Sl. No. D12B151 Model. YDPIR0101, Code No. EMC/APG/574 | 0 bar to 1.5 bar (Abs) | 0.0001 bar | 03-09-2023 | Wika / WCP/021-407 | | |
| CALIBRATION RESULT | | | | | | | |
| Nominal Range | Resolution | Nominal Value | Value determined by Electronic Balance in | Actual value determined after temp correction in | Error in | Expanded Uncertainty (±) | k factor |
| 1 µl to 10 µl | 0.1µl | (µl) | (mg) | (µl) | (µl) | (µl) | |
| | | 1 | 1.0015 | 1.004 | 0.004 | 0.003 | 2.20 |
| | | 5 | 5.0020 | 5.017 | 0.017 | 0.003 | 2.01 |
| | | 10 | 9.9965 | 10.026 | 0.026 | 0.004 | 2.02 |
| Note: i) Average of 10 readings had been taken in DUC/STD ii) The calibration certificate is issued by Electro Meter Corporation. This certificate refers only for the particular item submitted to calibrate. iii) The certificate if produced for any purpose commercial or otherwise, should be reproduced in full. Partial production of the certificate or an abstract thereof has to be got specifically approved from the technical and the quality manager of this lab. iv) The results in the calibration certificate are valid at the time of and under the stated conditions on measurement. v) "The Calibration result is only to be used for scientific and industrial purpose. This result can not be used for commercial purpose." | | | | | | | |
| Measurement uncertainty at approx 95 % of confidence level & at a coverage factor : As Per Calibration Result | | | | | | | |
| Remarks: Statement of conformity not mentioned. | | | | | | | |
| DUC- Device Under Calibration | | | F.S -Full Scale | | Physical status of the DUC: OK | | |
| Calibrated by: Pallab Sen Date: 1-Mar-2022 Report Issue Date: 02-03-2022 | | | | Checked & Approved by: Saptarshi Das Date: 02-03-2022 | | | |
|  Lab in charge Electro Meter Corporation | | | |  S. Das Technical Manager Electro Meter Corporation | | | |
| END OF CERTIFICATE | | | | | | | |